

#### **Description:**

- The ABT 75/90 G brake is an Active Brake, Hydraulically Applied; braking force produced by variation of hydraulic pressure.
- The ABT 75/90 G brake consists of two independent caliper halves with opposite hydraulic cylinders. ABT brakes are suitable for horizontal and vertical brake discs under any angular displacement.

#### **Design Advantage:**

- Compact and Robust construction
- Fast response time, fast braking for maximum safety
- Special design to reduce braking noise
- Stainless steel piston
- High performance lining with stable friction coefficient
- Suitable for low temperature application
- Long service life
- Easy maintenance

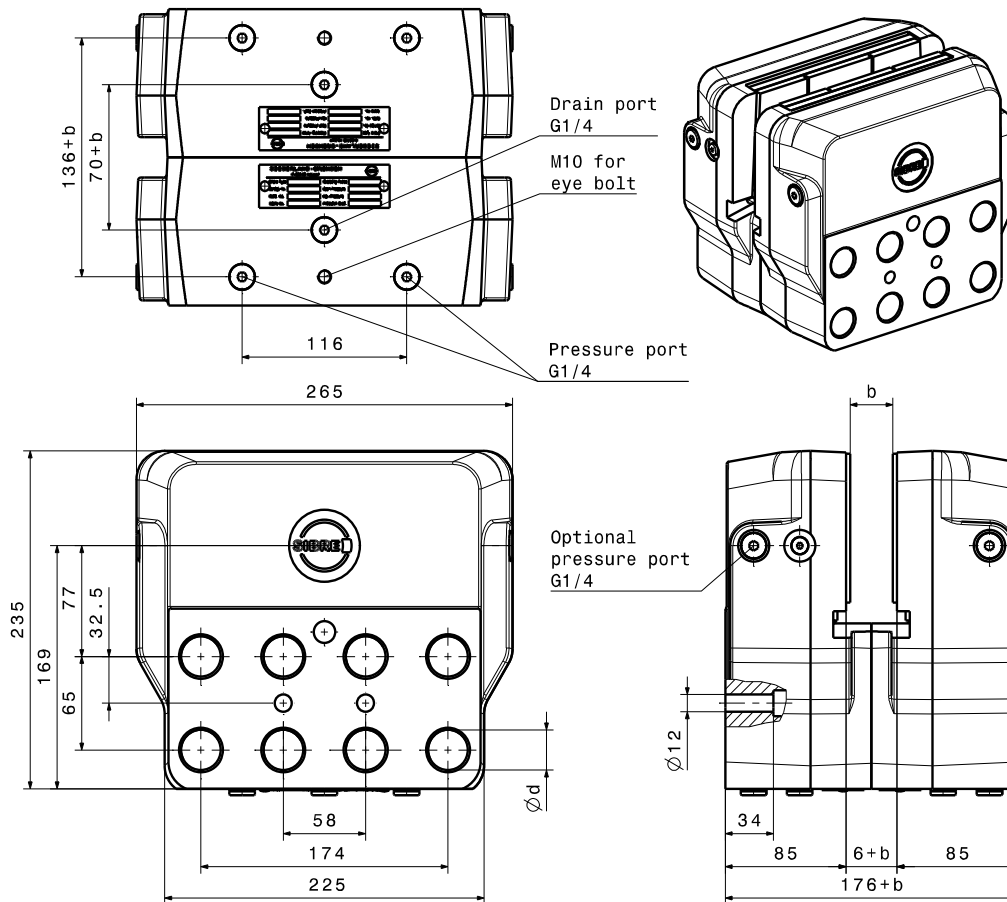
#### **Application:**

**Stopping and/or holding brake for wind turbines**

Alterations reserved

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# Disc Brake / Yaw Caliper ABT 75 G + ABT 90 G

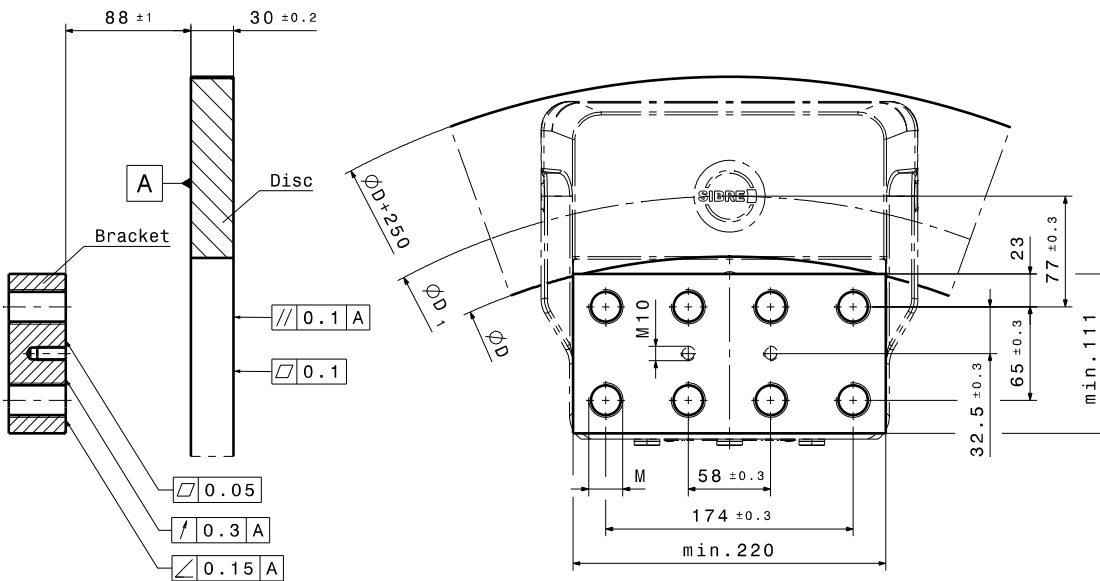


		ABT 75 G	ABT 90 G
Piston diameter	$\varnothing d_p$	75 mm	90 mm
Piston area each side	$A_p$	8835 mm <sup>2</sup>	12723 mm <sup>2</sup>
Operating pressure	$p$	160 bar	
Max. plant pressure	$p_{max}$	180 bar	
Oil volume per 1 mm stroke	$V_{oil}$	18 cm <sup>3</sup>	26 cm <sup>3</sup>
Lining type		organic	
Lining surface	$A_L$	206 cm <sup>2</sup>	
Max. lining wear	$s_L$	7 mm	
Nominal friction static	$\mu$	0.4	
Max. braking force	$F_{Br max}$	113 000 N	162 000 N
Disc thickness	$b$	20 – 70 mm	
Mounting boreholes	$\varnothing d$	$\varnothing 25$ mm	$\varnothing 28$ mm
Temperature range (for lower temperatures please contact us)	$T$	-20 °C to 70 °C	
Weight	$m$	65 kg	

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## Example for inside mounting (b = 30)



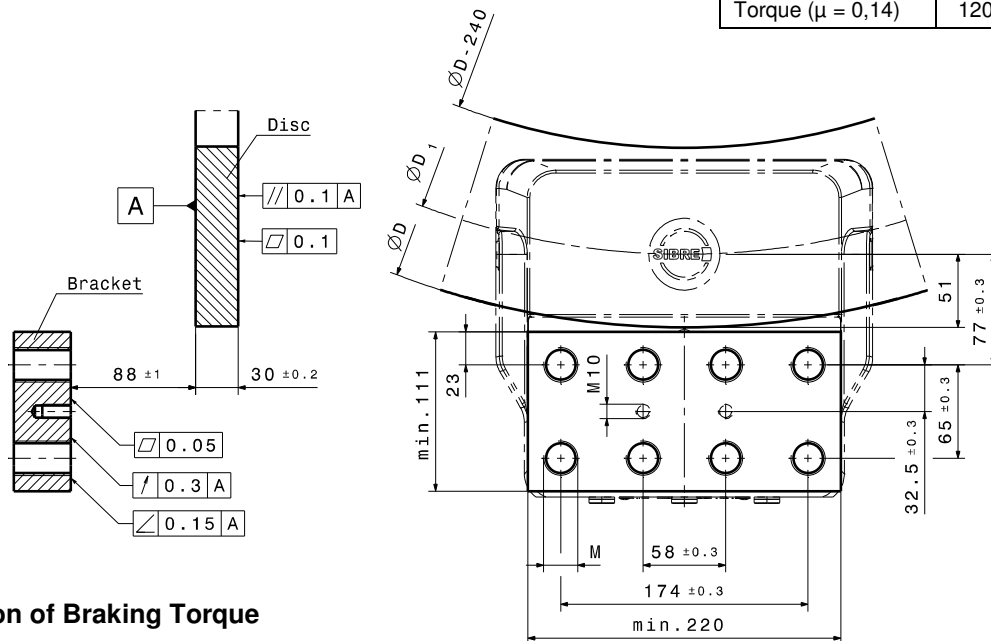
$\varnothing D$	$\varnothing D_1$
900	984
1000	1087
1200	1290
1400	1493
1600	1695
1800	1897
2000	2099
>2000	D+100

### Calculation of Braking Torque

$$M_{Br} = F_{Br} \cdot \frac{D_1}{2} = 2 \cdot A_P \cdot p \cdot \mu \cdot \frac{D_1}{2} = A_P \cdot p \cdot \mu \cdot D_1$$

	ABT 75 G	ABT 90 G
Mounting bolts M	M24-12.9	M27-12.9
Torque ( $\mu = 0,14$ )	1200 Nm	1800 Nm

## Example for outside mounting (b = 30)



	ABT 75 G	ABT 90 G
Mounting bolts M	M24-12.9	M27-12.9
Torque ( $\mu = 0,14$ )	1200 Nm	1800 Nm

### Calculation of Braking Torque

$$D_1 = D - 102$$

$$M_{Br} = F_{Br} \cdot \frac{D_1}{2} = 2 \cdot A_P \cdot p \cdot \mu \cdot \frac{D_1}{2} = 2 \cdot A_P \cdot p \cdot \mu \cdot \left( \frac{D}{2} - 51 \right)$$

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